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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,497

09/21/2005

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EXAMINER

VERLEY, NICOLE T

ART UNIT

PAPER NUMBER

3616

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,497	Applicant(s) HOFBECK ET AL.	
	Examiner NICOLE VERLEY	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 16 line 3 should recite the plurality of reflectors in the seats or recite the relationship the reflectors have with the seats.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-19, 22, 26 and 29-35 are rejected under 35 U.S.C. 102(a) as being anticipated by Breed (US Pub. No. 2002/0140215 A1).

Regarding claim 16, 22, 31 and 34, Breed discloses in figure 14 a plurality of seats with a plurality of reflectors (641 - 643) a single transmitter (231), a single receiver (232) and a control unit (101). Breed teaches a system for obtaining information about an object (the object is a seat), in the vehicle including one or more reflectors arranged in association with the object, a transmitter device for transmitting signals at least at the excitation frequency of each, an energy signal detector for detecting the energy signal emitted by each upon receipt of the signal at the excitation frequency, and a processor coupled to the detector for obtaining information about the object upon analysis of the

Art Unit: 3616

energy signal detected by the detector, the information obtained about the seat may be an indication of the position of the seat, the position of the back cushion of the seat, the position of the bottom cushion of the seat, the angular orientation of the seat, and other seat parameters (occupancy) (Abstract). In addition, a plurality of seats is disclosed in figure 6 showing a driver's seat and figure 1 showing a passenger seat (Paragraph 169 and 170).

Regarding claim 17, 18 and 32, Breed teaches depending on the radar frequency, the detecting method can be based on the modification of the waves in different ways such as reflection, absorption, scattering or transmission (paragraph 35).

Regarding claim 19 and 33, Breed teaches if the object is a seatbelt, the information obtained about the seatbelt may be an indication of whether the seatbelt is in use and/or the position of the seatbelt (paragraph 76), the use of a resonating device placed on the shoulder belt portion of the seatbelt (paragraph 98). It is inherent that the device would be able to transmit back appreciably more electromagnetic high-frequency energy than when the seatbelt is in an open passive position versus when the belt is fastened.

Regarding claim 26, Breed teaches the determination can also be used in various methods and arrangements for, controlling heating and air-conditioning systems to optimize the comfort for any occupants, controlling an entertainment system as desired by the occupants (paragraph 72).

Regarding claims 29 and 30, Breed teaches to obtain information about occupancy of a vehicle before, during and/or after a crash and convey this information

Art Unit: 3616

to remotely situated assistance personnel to optimize their response to a crash involving the vehicle and/or enable proper assistance to be rendered to the occupants after the crash (paragraph 72).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3616

Claims 19 - 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed as applied to claim 16 above, and further in view of Kraft (US Patent Number 6,099,030).

Breed does not explicitly disclose the details of the object being monitored when it is the seatbelt. However, Kraft teaches one distance measuring device (12) for continuously monitoring the sitting position of an occupant, includes one or more transmitting and receiving devices for reflectable beams. The distance measuring device is designed for detecting one or more reference points or regions of the safety belt in the chest portion and the safety belt is designed to reflect radiation in spots or sections for forming the reference points or regions for distance measurement (Abstract).

Regarding claim 19, Kraft teaches the safety belt which has an unused position and a used position (Column 2 lines 51-53). The reference region 7 is preferably located around the chest portion of the occupant 1 when the safety belt 3 is in the used position. It will be appreciated that the reference region 7 preferably includes portions of the belt material 10 which incorporate the reflective layer as part of the belt material 10 in that reference region 7 which is preferably designed to reflect radiation for distance measurement (Column 3 lines 3-9). It would be obvious that the device would be able to transmit back appreciably more electromagnetic high-frequency energy than when the seatbelt is in an open passive position versus when the belt is fastened since the reflective surface of seatbelt will be spread out over a larger area when fastened.

Art Unit: 3616

Claims 20 - 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed as applied to claim 16 above, and further in view of Kraft (US Patent Number 6,099,030) and Andres (US Patent Number 4,700,974).

Regarding to claims 20 and 21, Kraft teaches a safety belt which has an unused position and a used position (Column 2 lines 51-53). It is noted that Kraft does not explicitly teach that the retracting the seatbelt, in the open passive position, into an electromagnetically screened region (regarding claim 20) or retracting the seatbelt into a belt tensioner (regarding claim 21). However, Andres discloses Figure 2, a metallic electromagnetically shielding housing arranged directly with the restraint system, contemplated usage includes belt tighteners (Abstract). At the time of the invention it would have been obvious to one of ordinary skill in the art to use the electromagnetically screen seatbelt tensioner housing of Andres with the occupancy detection device of Kraft. Kraft and Andres are analogous in that they provide seatbelt and seat belt tensioner in a high frequency environment of a vehicle. The motivation to combine would have been to develop the known device of the belt tensioner housing to the extent that is cost effective and largely unsusceptible to interference of all types (Column 1 lines 45, 49-50). Breed, Kraft and Andres are from the same field of endeavor of passenger safety devices. At the time of invention it would have been obvious to one of ordinary skill in the art to use the features of Kraft and Andres in the device of Breed to enhance the safety features by using the devices in conjunction with one another.

Art Unit: 3616

Claims 23-25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed (US Pub. No. 2002/0140215 A1) in view of Heide (US Patent Number 6,946,949).

Regarding to claims 23-25, 27 and 28, Breed teaches obtaining information about occupancy of a vehicle before, during and/or after a crash and convey this information to remotely situated assistance personnel to optimize their response to a crash involving the vehicle and/or enable proper assistance to be rendered to the occupants after the crash (regarding claims 24 and 25) (paragraph 72). It is noted that Breed does not explicitly teach implementing the method steps in combination with a method for access control and/or for starting the vehicle. However, Heide discloses all the received echo signals are supplied to an evaluation unit. The evaluation unit can use the echo signals to determine: the authorization, and a statement relating to the distance between the code transmitter and the motor vehicle. Appropriate elements, such as a central locking system (regarding claim 23 and 27) or an immobilizer (regarding claim 28), can then be controlled based on the determinations of the evaluation unit (column 2 lines 7-14). Heide and Breed are analogous in they both have at least one transmitting and receiving unit for transmitting signals based around vehicle occupancy. At the time of invention it would have been obvious to one of ordinary skill in the art to combine the central locking system of Heide with the vehicle occupancy detection devices of Breed. The motivation to combine would have been that various non-contact types of transmissions were currently in general use in motor vehicle

Art Unit: 3616

technology (Column 1 lines 31-33).

Response to Arguments

Applicant's arguments filed June 30, 2008 have been fully considered but they are not persuasive.

Applicant argues that Breed does not show "a single transmitter..." The examiner maintains that the rejection is proper as Breed meets all of the limitations of the claimed invention. More specifically, Breed provides a single transmitter 231 that emits a field of high-frequency radiation towards the plurality of seats. The claimed recitation does not preclude a plurality of transmitters. You may have a plurality of transmitting/receiving devices and each one still being a single transmitting/receiving device. Applicant has not claimed only one of each or all of reflectors reflect to only one receiver from only one transmitter. Further, although each seat may have a transmitter associated with it, the transmitter 231 of Breed emits radiation "towards" all of the seats in the vehicle.

Applicant argues that Breed does not teach providing the seats with a single reflector to deduce information about the seat occupancy. The examiner maintains that the rejection is proper as Breed discloses in figure 14 the seats being provided with reflectors (paragraphs 273 - 275).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

Art Unit: 3616

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kraft and Andres have been combined to enhance the safety features by using the devices in conjunction with one another. Breed and Heide were combined since various non-contact types of transmissions were currently in general use in motor vehicle technology.

In response to applicant's argument that "Andres et al. teaches an outdated triggering system...", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE VERLEY whose telephone number is (571)270-3542. The examiner can normally be reached on 8:00 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. V./

Examiner, Art Unit 3616

/Paul N. Dickson/

Acting SPE of Art Unit 3616